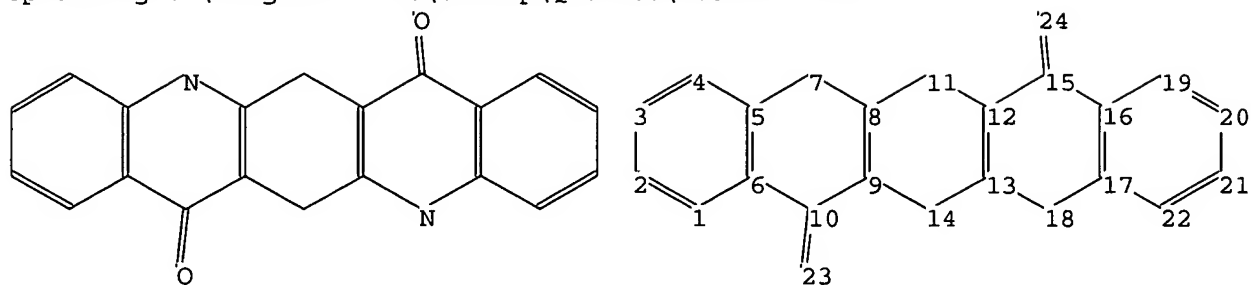


10519823 6/6/06

=>

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chain nodes :

23 24

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

10-23 15-24

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13
12-15 13-14 13-18 15-16 16-17 16-19 17-18 17-22 19-20 20-21 21-22

exact/norm bonds :

5-7 6-10 7-8 8-9 8-11 9-10 9-14 10-23 11-12 12-13 12-15 13-14 13-18
15-16 15-24 17-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 16-17 16-19 17-22 19-20 20-21 21-22

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS

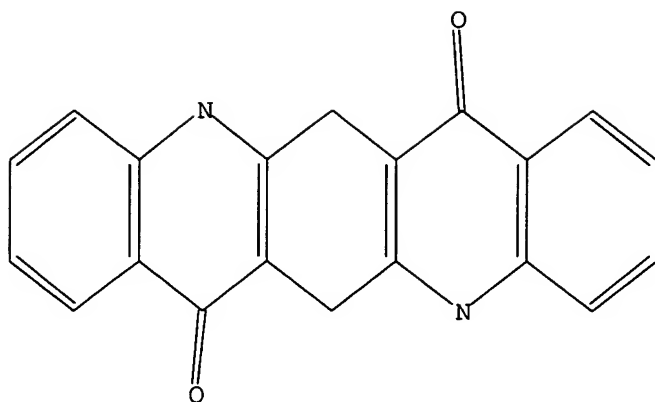
L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR

10519823 6/6/06



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 05:53:35 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 586 TO ITERATE

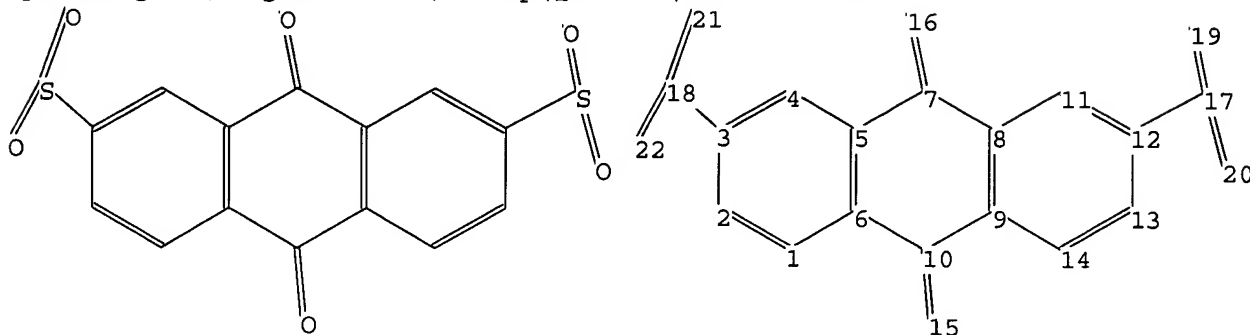
100.0% PROCESSED 586 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 10268 TO 13172
PROJECTED ANSWERS: 866 TO 1854

L2 50 SEA SSS SAM L1

=>

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chain nodes :

15 16 17 18 19 20 21 22

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14

chain bonds :

3-18 7-16 10-15 12-17 17-19 17-20 18-21 18-22

10519823 6/6/06

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13
13-14

exact/norm bonds :

3-18 5-7 6-10 7-8 7-16 9-10 10-15 12-17 17-19 17-20 18-21 18-22

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14

Match level :

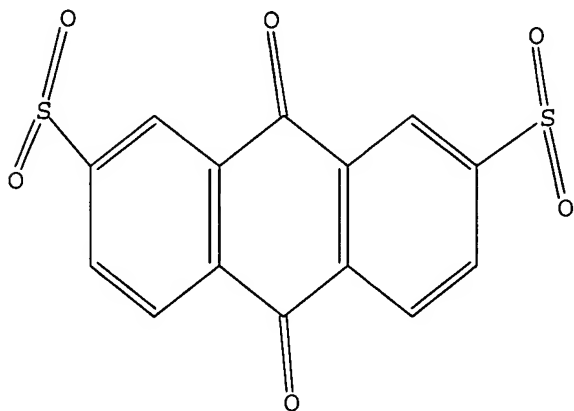
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 20:CLASS 21:CLASS 22:CLASS

L3 STRUCTURE UPLOADED

=> d

L3 HAS NO ANSWERS

L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 13

SAMPLE SEARCH INITIATED 05:57:07 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 3144 TO ITERATE

63.6% PROCESSED 2000 ITERATIONS

9 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 59517 TO 66243

PROJECTED ANSWERS: 57 TO 507

L4 9 SEA SSS SAM L3

=> s 13 full

Page 5 saeed

10519823 6/6/06

FULL SEARCH INITIATED 05:57:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 62195 TO ITERATE

100.0% PROCESSED 62195 ITERATIONS
SEARCH TIME: 00.00.02

177 ANSWERS

L5 177 SEA SSS FUL L3

=> s l5 and l2

L6 0 L5 AND L2

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

164.34

164.55

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FILE COVERS 1907 - 22 Aug 2005 VOL 143 ISS 9
FILE LAST UPDATED: 21 Aug 2005 (20050821/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l5 and quinacridone

272 L5

1890 QUINACRIDONE

271 QUINACRIDONES

1942 QUINACRIDONE

(QUINACRIDONE OR QUINACRIDONES)

L7 4 L5 AND QUINACRIDONE

=> d ibib abs histr tot

'HISTR' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB

ALL ----- BIB, AB, IND, RE

APPS ----- AI, PRAI

BIB ----- AN, plus Bibliographic Data and PI table (default)

CAN ----- List of CA abstract numbers without answer numbers

CBIB ----- AN, plus Compressed Bibliographic Data

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:650030 CAPLUS
 DOCUMENT NUMBER: 141:191921
 TITLE: Synthesis of small particle size quinacridone
 of beta crystal phase
 INVENTOR(S): Cole, Damien Thurber; Jaganathan, Suruliappa Gowder;
 He, Yingxia
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004067642	A1	20040812	WO 2003-EP51087	20031222
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004229057	A1	20041118	US 2004-752617	20040107
PRIORITY APPL. INFO.:			US 2003-443257P	P 20030128

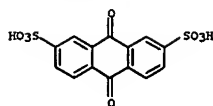
OTHER SOURCE(S): MARPAT 141:191921
 AB This invention relates to a process for the production of β -form quinacridone pigment by oxidation in the presence of selected additives that promote the formation of the desired crystal phase and particle size. In an example, 6,13-dihydroquinacridone was oxidized using H₂O₂ and Na anthraquinonesulfonate in the presence of (phthalimidoethyl)-2,9-dichloroquinacridone to give β -quinacridone of surface area 43.1 m²/g.
 IT 853-67-8, Sodium 2,7-anthraquinonesulfonate 736946-19-3
 RL: CAT (Catalyst use); USES (Uses)
 (in production of small particle size quinacridone pigment of beta crystal phase)
 RN 853-67-8 CAPLUS
 CN 2,7-Anthracenedisulfonic acid, 9,10-dihydro-9,10-dioxo-, disodium salt (7CI, 8CI, 9CI) (CA INDEX NAME)

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:467965 CAPLUS
 DOCUMENT NUMBER: 141:39722
 TITLE: Preparation and use of formaldehyde-naphthalene sulfonic acid copolymer-containing nanosize pigment compositions
 INVENTOR(S): Baebler, Fridolin
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048482	A1	20040610	WO 2003-EP50840	20031117
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
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US 2004138349	A1	20040715	US 2003-714270	20031114
US 6902613	B2	20050607		
CA 2505847	AA	20040610	CA 2003-2505847	20031117
US 2005145140	A1	20050707	US 2005-29958	20050105
PRIORITY APPL. INFO.:			US 2002-430522P	P 20021127
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			WO 2003-EP50840	W 20031117

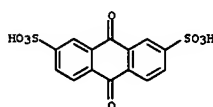
OTHER SOURCE(S): MARPAT 141:39722
 AB A nanosize pigment composition as a particle growth and crystal phase director
 for the preparation of a direct pigmentary organic pigment or in pigment finishing
 comprises 50-99 weight% nanosize pigment with average particle size of 1-100 nm
 selected from azo, azomethine, methine, anthraquinone, phthalocyanine, perinone, perylene, diketopyrrolopyrrole, thioindigo, thiazindigo, diazine, iminoindoline, iminoindolinone, quinacridone, flavanthrone, indanthrone, anthrapyrimidine, and quinophthalone, and 1-50 weight% low mol. weight polysulfonated hydrocarbon, in particular naphthalene mono- or disulfonic acid formaldehyde polymer. Thus, formaldehyde and sodium naphthalene sulfonate were polymerized in the presence of quinacridone (Cromophthal Red 2020) to obtain quinacridone nanoparticles with average size of 4-25 nm.
 IT 853-67-8, Disodium anthraquinone-2,7-disulfonate
 RL: CAT (Catalyst use); USES (Uses)
 (preparation and application of formaldehyde-naphthalene sulfonic acid copolymer-containing nanosize pigment compns.)
 RN 853-67-8 CAPLUS
 CN 2,7-Anthracenedisulfonic acid, 9,10-dihydro-9,10-dioxo-, disodium salt (7CI, 8CI, 9CI) (CA INDEX NAME)

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



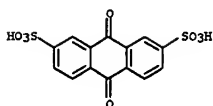
●2 Na

RN 736946-19-3 CAPLUS
 CN 2,7-Anthracenedisulfonic acid, 9,10-dihydro-9,10-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

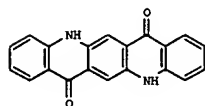


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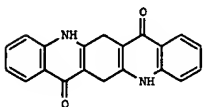
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:467963 CAPLUS
 DOCUMENT NUMBER: 141:39724
 TITLE: Synthesis of β -quinacridone pigment
 from 6,13-dihydroquinacridone
 INVENTOR(S): Baebler, Fridolin
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048479	A1	20040610	WO 2003-EP50839	20031117
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: EW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004138457	A1	20040715	US 2003-714269	20031114
US 6864371	B2	20050308	CA 2003-2505763	20031117
CA 2505763	AA	20040610	US 2002-429780P	20021127
PRIORITY APPLN. INFO.:			WO 2003-EP50839	W 20031117
OTHER SOURCE(S):		CASREACT 141:39724		
GI				



I



II

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:60602 CAPLUS
 DOCUMENT NUMBER: 140:112813
 TITLE: Oxidation process for preparing quinacridone pigments
 INVENTOR(S): Baebler, Fridolin; Merstetter, Hans Rudolf
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007623	A1	20040122	WO 2003-EP7337	20030708
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2489989 AA 20040122 CA 2003-2489989 20030708 EP 1521809 A1 20050413 EP 2003-763746 20030708 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK BR 2003012705 A 20050426 BR 2003-12705 20030708 US 2005176959 A1 20050811 US 2003-517412 20030708 PRIORITY APPLN. INFO.:				
			US 2002-396377P	P 20020717
			WO 2003-EP7337	W 20030708

OTHER SOURCE(S): CASREACT 140:112813; MARPAT 140:112813
 AB The invention relates to a process of preparing quinacridone by oxidizing a 6,13-dihydroquinacridone salt (corresponding to the quinacridone pigment) with hydrogen peroxide as the oxidizing agent in the presence of 2,7-anthraquinonedisulfonic acid as catalyst. The process is economical and environmentally friendly and yields high-performance pigments in high yield. In an example, 2,9-dichloro-6,13-dihydroquinacridone in MeOH was heated with aqueous KOH.

To the product were added Na 2,7-anthraquinonedisulfonate and H2O2 and refluxing continued to give magenta 2,9-dichloroquinacridone in 97.4% purity.

IT 853-67-8, Sodium 2,7-anthraquinonedisulfonate
 RL: CAT (Catalyst use); USES (Uses)
 (in oxidation process for preparing quinacridone pigments)

RN 853-67-8 CAPLUS

CN 2,7-Anthraquinonedisulfonic acid, 9,10-dihydro-9,10-dioxo-, disodium salt (7CI, 8CI, 9CI) (CA INDEX NAME)

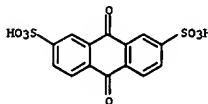
L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB β -Quinacridone (I) is prepared by the oxidation of alkali metal salt of 6,13-dihydroquinacridone (II) by H2O2 at >30° in a liquid phase composed of water and C1-3 alcs., in the presence of 0.2-4 weight catalyst, such as anthraquinone and anthraquinone monosulfonic acid, polyvinyl pyrrolidone, a base, a particulate quinone with average particle size <0.2 μ m, and a particle growth inhibitor, preferably phthalimidomethyl-, imidazolymethyl-, pyrazolymethyl-quinacridone, or quinacridone monosulfonic acid or its salts. Thus, 6,13-dihydroquinacridone was mixed with polyvinyl pyrrolidone powder in methanol before the addition of NaOH, and 2,7-anthraquinone disulfonic acid and H2O2 were then introduced into the system and reacted to provide a bronze colored β -quinacridone with large particle size.

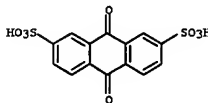
IT 84-49-1, 2,7-Anthraquinone disulfonic acid 853-67-8, Disodium anthraquinone-2,7-disulfonate
 RL: CAT (Catalyst use); USES (Uses)
 (synthesis of β -quinacridone pigment from 6,13-dihydroquinacridone)

RN 84-49-1 CAPLUS

CN 2,7-Anthraquinonedisulfonic acid, 9,10-dihydro-9,10-dioxo- (7CI, 8CI, 9CI) (CA INDEX NAME)



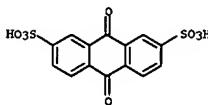
RN 853-67-8 CAPLUS
 CN 2,7-Anthraquinonedisulfonic acid, 9,10-dihydro-9,10-dioxo-, disodium salt (7CI, 8CI, 9CI) (CA INDEX NAME)



● 2 Na

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● 2 Na

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT